REMARKS

Reconsideration is respectfully requested.

Claims 1-60 are pending. Claims 11 and 47 have been canceled. Claims 1, 12-22, 25, 35, 45, 49 and 60 have been amended. The subject matter of claims 11 and 47 has been incorporated into claims 1, 25, 35, 45, 49 and 60. The amendment of claims 12-22 was necessitated because the dependency of claims 12-22 has been changed as a result of the cancellation of claim 11.

Claims 1-60 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Vanmaele et al. (US 2003/0209166).

As amended, the present invention relates to a multimeric dye for ink-jet printing, comprising a first dye molecule chemically coupled to a second dye molecule through a linker group, said multimeric dye as a whole being substantially stable in the presence of interfering metals, said interfering metals including at least one member selected from the group consisting of aluminum, and one or more transition metal;
and wherein the linker group is coupled to the first dye molecule or the second dye molecule by a bonding structure selected from the group consisting of a triazine, an amide bond, an ether bond, and an ester bond, and wherein the linker group further includes an alkylene group, an arylene group, or a cycloalkylene group.

In contrast, Vanmaele teaches a dye-linking residue or "multiple H-donor/acceptor unit", which can form at least three hydrogen bonds between different dye residues; the multiple H-donor/acceptor unit being triple and quadruple hydrogen bonding systems, e.g. ureidopyrimidone systems, aminopyrimidine systems, aminopyridine systems, imide systems, aminotriazine systems, barbituric acid systems, urea based systems, uric acid based systems and saccharide based systems (Vanmaele, US 2003/0209166 A1).

There are many differences between the linkers of the presently claimed invention and the dye-linking residue of Vanmaele, one of the most important differences being that the linkers of the presently claimed invention form chemical, covalent bonds between the dyes and the linker. In contrast, Vanmaele's dye-linking residue forms only hydrogen bonds.

The dyes linked by the linkers of the presently claimed invention are linked by stable bonds. Thus the linked dyes can remain indefinitely in their enlarged, linked molecular forms, the stable, covalent forms contributing to the dyes' stability in the presence of interfering metals. The dyes linked by the dye-linking residues of Vanmaele remain only ephemerally in a particular form. During the self-assembly process of Vanmaele, the hydrogen bonds are not only between the dye-linking residues and the dye molecules but are also constantly shifting to form hydrogen bonds between the dye-linking residues and the ink vehicle around the self-assembled dyes. As the ink vehicle evaporates around the self-assembled dyes, the hydrogen bonds shift in even more elaborate variations (See Vanmaele, page 3, paragraph 47).

The main difference between the linked dyes of the presently claimed invention is, plain and simple, the difference between covalent bonds and hydrogen bonds. The one is inherently stable, the other is inherently unstable. Because of these bonds, the same contrast between stable and unstable occurs with the dye structures themselves in the respective patents. For this reason, the applicant respectfully asserts that the 103(a) rejection based on Vanmaele should be withdrawn.

In view of the above amendments and arguments, the applicants respectfully request that the above rejections be withdrawn.

Respectfully submitted,

Deardurff

Hewlett-Packard Company
1000 NE Circle Blvd MS 422B
Corvallis, OR 97330

W. Bradley Haymond
Reg. No. 35,186
Attorney for Applicant

Date: April 17, 2006
Telephone: (541) 715-0159